```
     FILE 'REGISTRY' ENTERED AT 14:14:28 ON 10 MAR 2002
L1           14 S GOSSYPOL/CN OR HEMIGOSSYPOL/CN OR DESOXYHEMIGOSSYPOL/CN OR HE

     FILE 'CAPLUS' ENTERED AT 14:18:05 ON 10 MAR 2002
L2        11595 S L1
L3        14875 S COCKROACH? OR TERMIT? OR FIREANT OR FIREANTS OR ANT OR ANTS O
L4            7 S L2 AND L3

     FILE 'WPIDS, CABA, AGRICOLA' ENTERED AT 14:22:19 ON 10 MAR 2002

     FILE 'REGISTRY' ENTERED AT 14:22:26 ON 10 MAR 2002
               SET SMARTSELECT ON
L5           SEL L1 1- CHEM :       97 TERMS
               SET SMARTSELECT OFF

     FILE 'WPIDS, CABA, AGRICOLA' ENTERED AT 14:22:28 ON 10 MAR 2002
L6         6705 S L5/BI
L7         6715 S L6 OR GOSSYPOL? OR HEMIGOSSYPOL? OR DESOXYHEMIGOSSYPOL?
L8        40096 S COCKROACH? OR TERMIT? OR FIREANT OR FIREANTS OR ANT OR ANTS O
L9            3 S L7 AND L8

     FILE 'CAPLUS' ENTERED AT 14:34:11 ON 10 MAR 2002
L10        3236 S GOSSYPOL? OR HEMIGOSSYPOL? OR DESOXYHEMIGOSSYPOL? OR ?GOSSYPO
L11           1 S L10 AND L3
L12           1 S L11 NOT L4

     FILE 'STNGUIDE' ENTERED AT 14:41:10 ON 10 MAR 2002

     FILE 'CAPLUS' ENTERED AT 14:42:11 ON 10 MAR 2002
L13       12971 S L10 OR L2
L14           1 S L13 AND (BAIT? OR TRAP? OR LURE#) AND (INSECTICID? OR PESTICI

     FILE 'REGISTRY' ENTERED AT 14:44:52 ON 10 MAR 2002
L15           1 S 37226-07-6/RN
               SET NOTICE 1 DISPLAY
               SET NOTICE LOGIN DISPLAY

     FILE 'WPIDS, CABA, AGRICOLA' ENTERED AT 14:47:33 ON 10 MAR 2002
L16           4 S L7 AND (BAIT? OR TRAP? OR LURE#) AND (INSECTICID? OR PESTICI
L17          77 S L7 AND (CELLULOS?)
L18          31 S L7 (15A) (CELLULOS?)

     FILE 'STNGUIDE' ENTERED AT 14:52:29 ON 10 MAR 2002

     FILE 'WPIDS, CABA, AGRICOLA' ENTERED AT 14:59:17 ON 10 MAR 2002
L19           1 S L7 AND SOCIAL INSECT#
L20           1 S L19 NOT L9

     FILE 'CAPLUS' ENTERED AT 15:01:45 ON 10 MAR 2002
L21         204 S L13 AND (CELLULOS? OR SAWDUST#)
L22          25 S L13 (15A) (CELLULOS? OR SAWDUST#)

     FILE 'STNGUIDE' ENTERED AT 15:04:26 ON 10 MAR 2002

     FILE 'CAPLUS' ENTERED AT 15:08:15 ON 10 MAR 2002
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=> d que l1; d que l3; d que l8; d que l10; d que l14; d que l16
L1            14 SEA FILE=REGISTRY GOSSYPOL/CN OR HEMIGOSSYPOL/CN OR DESOXYHEMIG
                 OSSYPOL/CN OR HEMIGOSSYPOLONE/CN OR QUERCETIN/CN OR RUTIN/CN
                 OR HELIOCIDE


L3         14875 SEA FILE=CAPLUS COCKROACH? OR TERMIT? OR FIREANT OR FIREANTS
                 OR ANT OR ANTS OR SOLENOPSIS OR TAPINOMA OR PERIPLANETA OR
                 BLATTELLA OR RHYNOTERMITID? OR KALOTERMITID? OR COPTOTERM? OR
                 RETICULITERM?


L8         40096 SEA COCKROACH? OR TERMIT? OR FIREANT OR FIREANTS OR ANT OR
                 ANTS OR SOLENOPSIS OR TAPINOMA OR PERIPLANETA OR BLATTELLA OR
                 RHYNOTERMITID? OR KALOTERMITID? OR COPTOTERM? OR RETICULITERM?


L10         3236 SEA FILE=CAPLUS GOSSYPOL? OR HEMIGOSSYPOL? OR DESOXYHEMIGOSSYPO
                 L? OR ?GOSSYPOL OR ?GOSSYPOLONE


L1            14 SEA FILE=REGISTRY GOSSYPOL/CN OR HEMIGOSSYPOL/CN OR DESOXYHEMIG
                 OSSYPOL/CN OR HEMIGOSSYPOLONE/CN OR QUERCETIN/CN OR RUTIN/CN
                 OR HELIOCIDE
L2         11595 SEA FILE=CAPLUS L1
L10         3236 SEA FILE=CAPLUS GOSSYPOL? OR HEMIGOSSYPOL? OR DESOXYHEMIGOSSYPO
                 L? OR ?GOSSYPOL OR ?GOSSYPOLONE
L13        12971 SEA FILE=CAPLUS L10 OR L2
L14            1 SEA FILE=CAPLUS L13 AND (BAIT? OR TRAP? OR LURE#) AND (INSECTIC
                 ID? OR PESTICID? OR TOXIN?)


L1            14 SEA FILE=REGISTRY GOSSYPOL/CN OR HEMIGOSSYPOL/CN OR DESOXYHEMIG
                 OSSYPOL/CN OR HEMIGOSSYPOLONE/CN OR QUERCETIN/CN OR RUTIN/CN
                 OR HELIOCIDE
L5               SEL  L1 1- CHEM :       97 TERMS
L6          6705 SEA L5/BI
L7          6715 SEA L6 OR GOSSYPOL? OR HEMIGOSSYPOL? OR DESOXYHEMIGOSSYPOL?
L16            4 SEA L7 AND (BAIT? OR TRAP? OR LURE#) AND (INSECTICID? OR
                 PESTICID? OR TOXIN?)
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L4 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2002 ACS
AN 2002:147601 CAPLUS
TI Insect repellents containing flavonoids and extraction of them from plant
IN Doi, Shuichi; Aoyama, Masakazu; Ohara, Seiji; Omura, Wakako
PA Koshii Preserving Co., Ltd., Japan; Shinrin Sogo Kenkyusho
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002060304	A2	20020226	JP 2001-169175	20010605
PRAI	JP 2000-167994	A	20000605		

AB Insect repellents, esp. **termite** repellents, contain flavonoids as main ingredients. Flavonoids are obtained from plants by previously removing water-sol. components from the plant and extg. with hot water. Extn. of taxifolin (I) from larch (Larix) and repellent effect of I supported on zeolite on **termite** were shown.
AB Insect repellents, esp. **termite** repellents, contain flavonoids as main ingredients. Flavonoids are obtained from plants by previously removing water-sol. components from the plant and extg. with hot water. Extn. of taxifolin (I) from larch (Larix) and repellent effect of I supported on zeolite on **termite** were shown.
ST flavonoid insect repellent; **termite** repellent taxifolin extn larch
IT Insect repellents
(insect repellents esp. **termite** repellents contg. flavonoids and extn. of them from plant)
IT Flavonoids
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)
(insect repellents esp. **termite** repellents contg. flavonoids and extn. of them from plant)
IT **Termite** (Isoptera)
(repellents; insect repellents esp. **termite** repellents contg. flavonoids and extn. of them from plant)
IT 529-44-2, Myricetin
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(insect repellents esp. **termite** repellents contg. flavonoids and extn. of them from plant)
IT **117-39-5P**, Quercetin 480-18-2P, Taxifolin 480-20-6P, Aromadendrin 480-41-1P, Naringenin 480-43-3P, Isosakuranetin
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)
(insect repellents esp. **termite** repellents contg. flavonoids and extn. of them from plant)

L4 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2002 ACS
AN 2001:821498 CAPLUS
DN 136:99237
TI Morphogenetic effects of the interaction of floral mutations petal-sepal and anther in petal in Papaver somniferum L.
AU Belyaeva, R. G.
CS Kol'tsov Institute of Developmental Biology, Russian Academy of Sciences, Moscow, 119991, Russia
SO Russian Journal of Developmental Biology (Translation of Ontogenez) (2001), 32(5), 283-286
CODEN: RJDBE2; ISSN: 1062-3604

PB MAIK Nauka/Interperiodica Publishing
DT Journal
LA English
AB The morphogenetic effects of the interaction of the floral mutations petal-sepal and anther in petal in Papaver somniferum L. with a monocarpic shoot were studied. During anal. of the mutations controlled by the genes ptsp and **Ant**, no plants of the double-mutant class were found in the second generation, in which microsporangia form on the corolla sepal structures. The ratio of phenotypic classes obtained in the expt. corresponds to that inheritance, when the genetic control of mutant characters is realized by nonallele nonlinked genes **Ant** and ptsp upon epistatic interaction of these genes. These data were confirmed by anal. of the genotypes of F2 plants from the phenotypic class petal-sepal, which include plants that carry both mutant genes **Ant** and ptsp. Thus, the gene **Ant**, which controls the formation of microsporangia in the corolla metameres, is not expressed in the presence of a mutation of the gene ptsp; i.e., microsporangia are not formed in tissues with photosynthesizing cells. Thus, the development of microsporangia is detd. by the level of a product of the gene Ptsp. The role of flavonols (quercetin), inhibitors of photosynthesis, as a mechanism of regulation of activity of the genes controlling morphogenesis of the corolla elements and differentiation of microsporangia, is discussed.
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
AB The morphogenetic effects of the interaction of the floral mutations petal-sepal and anther in petal in Papaver somniferum L. with a monocarpic shoot were studied. During anal. of the mutations controlled by the genes ptsp and **Ant**, no plants of the double-mutant class were found in the second generation, in which microsporangia form on the corolla sepal structures. The ratio of phenotypic classes obtained in the expt. corresponds to that inheritance, when the genetic control of mutant characters is realized by nonallele nonlinked genes **Ant** and ptsp upon epistatic interaction of these genes. These data were confirmed by anal. of the genotypes of F2 plants from the phenotypic class petal-sepal, which include plants that carry both mutant genes **Ant** and ptsp. Thus, the gene **Ant**, which controls the formation of microsporangia in the corolla metameres, is not expressed in the presence of a mutation of the gene ptsp; i.e., microsporangia are not formed in tissues with photosynthesizing cells. Thus, the development of microsporangia is detd. by the level of a product of the gene Ptsp. The role of flavonols (quercetin), inhibitors of photosynthesis, as a mechanism of regulation of activity of the genes controlling morphogenesis of the corolla elements and differentiation of microsporangia, is discussed.
IT Gene, plant
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**Ant**; morphogenetic effects of interaction of floral mutations petal-sepal and anther in petal in Papaver somniferum as related to)
IT **117-39-5**, (Quercetin)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(morphogenetic effects of interaction of floral mutations petal-sepal and anther in petal in Papaver somniferum response to)

L4 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2002 ACS
AN 2001:629660 CAPLUS
DN 135:268424
TI Screening of environmental contaminants for ecdysteroid agonist and antagonist activity using the Drosophila melanogaster BII cell in vitro assay
AU Dinan, Laurence; Bourne, Pauline; Whiting, Pensri; Dhadialla, Tarlochan S.; Hutchinson, Thomas H.

CS Department of Biological Sciences, Hatherly Laboratories, University of Exeter, Exeter, EX4 4PS, UK
SO Environ. Toxicol. Chem. (2001), 20(9), 2038-2046
CODEN: ETOCDK; ISSN: 0730-7268
PB SETAC Press
DT Journal
LA English
AB The BII bioassay was developed as a rapid and reliable tool for detecting potential insect growth regulators acting as ecdysteroid receptor (**ant**)agonists. Based on an ecdysteroid-responsive cell line from Drosophila melanogaster, this microplate assay is ideally suited to the evaluation of environmental contaminants as potential endocrine disrupters. Data are presented for about 80 potential environmental contaminants, including industrial chems., pesticides, pharmaceuticals, phytoestrogens, and vertebrate steroids, and are compared with data for known (**ant**)agonists. Apart from androst-4-ene-3, 17-dione (a weak antagonist), vertebrate steroids were inactive at concns. up to 10-3 M. The vast majority of xenobiotics also showed no (**ant**)agonist activity. Among the industrial chems., antagonistic activity was obsd. for bisphenol A median effective concn. (EC50) of 1.0 .times. 10-4 M and diethylphthalate (EC50 of 2.0 .times. 10-3 M). Some organochlorine compds. also showed weak antagonistic activity, including o,p'-dichlorodiphenyldichloroethylene (DDE), p,p'-DDE, dieldrin, and lindane (EC50 of 3.0 .times. 10-5 M). For lindane, bisphenol A, and diethylphthalate, activity is not assocd. with impurities in the samples and, for lindane and bisphenol A at least, the compds. are able to compete with ecdysteroids for the ligand binding site on the receptor complex, albeit at concns. very much higher than those found in the environment. The only pharmaceutical showing any detectable antagonist activity was 17.alpha.-ethynylestradiol. In the context of recent publications on potential endocrine disruption in marine and freshwater arthropods, these findings suggest that, for some compds. (e.g., diethylstilbestrol), ecdysteroid receptor-mediated responses are unlikely to be involved in producing chronic effects. The BII assay has a potentially valuable role to play in distinguishing between endocrine-mediated, which normally occur at submicromolar concns., and pharmacol. effects in insects and crustaceans.
RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
AB The BII bioassay was developed as a rapid and reliable tool for detecting potential insect growth regulators acting as ecdysteroid receptor (**ant**)agonists. Based on an ecdysteroid-responsive cell line from Drosophila melanogaster, this microplate assay is ideally suited to the evaluation of environmental contaminants as potential endocrine disrupters. Data are presented for about 80 potential environmental contaminants, including industrial chems., pesticides, pharmaceuticals, phytoestrogens, and vertebrate steroids, and are compared with data for known (**ant**)agonists. Apart from androst-4-ene-3, 17-dione (a weak antagonist), vertebrate steroids were inactive at concns. up to 10-3 M. The vast majority of xenobiotics also showed no (**ant**)agonist activity. Among the industrial chems., antagonistic activity was obsd. for bisphenol A median effective concn. (EC50) of 1.0 .times. 10-4 M and diethylphthalate (EC50 of 2.0 .times. 10-3 M). Some organochlorine compds. also showed weak antagonistic activity, including o,p'-dichlorodiphenyldichloroethylene (DDE), p,p'-DDE, dieldrin, and lindane (EC50 of 3.0 .times. 10-5 M). For lindane, bisphenol A, and diethylphthalate, activity is not assocd. with impurities in the samples and, for lindane and bisphenol A at least, the compds. are able to compete with ecdysteroids for the ligand binding site on the receptor complex, albeit at concns. very much higher than those found in the environment. The only pharmaceutical showing any detectable antagonist activity was 17.alpha.-ethynylestradiol. In the context of recent publications on potential endocrine disruption in marine and freshwater arthropods, these

findings suggest that, for some compds. (e.g., diethylstilbestrol), ecdysteroid receptor-mediated responses are unlikely to be involved in producing chronic effects. The BII assay has a potentially valuable role to play in distinguishing between endocrine-mediated, which normally occur at submicromolar concns., and pharmacol. effects in insects and crustaceans.

IT 50-14-6, Vitamin D2 50-22-6, Corticosterone 50-23-7, Hydrocortisone 50-27-1, Estriol 50-28-2, Estradiol, biological studies 52-39-1, Aldosterone 53-06-5, Cortisone 53-16-7, Estrone, biological studies 57-83-0, Progesterone, biological studies 58-22-0, Testosterone 63-05-8, 4-Androstene-3,17-dione 67-97-0, Vitamin D3 68-96-2, 17.alpha.-Hydroxyprogesterone 81-25-4, Cholic acid 91-17-8, Decalin **117-39-5**, Quercetin 446-72-0, Genistein 474-25-9, Chenodeoxycholic acid 486-66-8, Daidzein 491-70-3, Luteolin 491-80-5, Biochanin A 500-38-9, Nordihydroguaiaretic acid 501-36-0, trans-Resveratrol 516-15-4, 11-Ketoprogesterone 520-36-5, Apigenin 528-48-3, Fisetin 529-44-2, Myricetin 588-59-0, Stilbene 644-06-4, Precocene II 963-74-6, 5.alpha.-Androstan-17-one 2222-07-3, Cucurbitacin I 3604-87-3, Ecdysone 3877-86-9, Cucurbitacin D 4832-17-1, 2-Decalone 5289-74-7, 20-Hydroxyecdysone 6199-67-3, Cucurbitacin B 13408-56-5, Ponasterone A 17598-02-6, Precocene I 17924-92-4, Zearalenone 18444-66-1, Cucurbitacin E 22963-93-5, Juvenile hormone III 40596-69-8, Methoprene 61434-67-1, cis-Resveratrol 62218-13-7, .alpha.-Viniferin 65383-73-5 82373-95-3, 28-Homobrassinolide 112225-87-3, RH 5849 112410-23-8, RH 5992 130518-19-3, Ampelopsin B 220936-82-3, Suffruticosol A 220936-87-8, Suffruticosol B 220936-94-7, Suffruticosol C
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(environmental contaminants screening for ecdysteroid agonist and antagonist activity using the Drosophila melanogaster BII cell in vitro assay)

L4 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2002 ACS
AN 2000:349904 CAPLUS
DN 133:131156
TI Antifeedant activity of flavonoids and related compounds against the subterranean **termite Coptotermes** formosanus Shiraki
AU Ohmura, Wakako; Doi, Shuichi; Aoyama, Masakazu; Ohara, Seiji
CS Forestry and Forest Products Research Institute, Ibaraki, 305-8687, Japan
SO Journal of Wood Science (2000), 46(2), 149-153
CODEN: JWSCFG; ISSN: 1435-0211
PB Springer-Verlag Tokyo
DT Journal
LA English
AB Antifeedant activity of some flavonoids and their related compds. against C. formosanus was examd. with no-choice tests and two-choice tests. The activities of these compds. were evaluated in relation to their chem. structures. All flavonoids tested showed antifeedant activity, whereas catechinic acid, possessing no A-ring or pyran ring in the mol., showed feeding-preference activity. For the structure-activity relations, it was found that compds. contg. two hydroxyl groups at C-5 and C-7 in A-rings showed high antifeedant activity. Furthermore, the presence of a carbonyl group at C-4 in the pyran rings of the compds. was necessary for the occurrence of high activity. 3-Hydroxyflavones and 3-hydroxyflavanones with 3',4'-dihydroxylated B-rings exhibited higher activity than those with 4'-hydroxylated B-rings.
RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
TI Antifeedant activity of flavonoids and related compounds against the subterranean **termite Coptotermes** formosanus Shiraki
ST insect antifeedant flavonoid **Coptotermes**
IT **Coptotermes** formosanus
Insect feeding inhibitors

(antifeedant activity of flavonoids and related compds. against **Coptotermes** formosanus)

IT Flavonoids
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(antifeedant activity of flavonoids and related compds. against **Coptotermes** formosanus)

IT Structure-activity relationship
(insect feeding-inhibiting; of flavonoids and related compds. against **Coptotermes** formosanus)

IT 60-82-2, Phloretin **117-39-5**, Quercetin 154-23-4, Catechin 446-72-0, Genistein 480-18-2, Taxifolin 480-20-6, Aromadendrin 480-41-1, Naringenin 480-43-3, Isosakuranetin 520-18-3, Kaempferol 528-48-3, Fisetin 529-44-2, Myricetin 552-58-9, Eriodictyol 2957-21-3, Sakuranetin 52484-79-4, Catechinic acid
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(antifeedant activity of flavonoids and related compds. against **Coptotermes** formosanus)

L4 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2002 ACS
AN 1995:327895 CAPLUS
DN 122:99284
TI Diflubenzuron affects gamma-thioGTP stimulated Ca2+ transport in vitro in intracellular vesicles from the integument of the newly molted American **cockroach, Periplaneta** americana L
AU Nakagawa, Yoshiaki; Matsumura, Fumio
CS Dep. Environmental Toxicology, Univ. Calif., Davis, CA, 95616, USA
SO Insect Biochem. Mol. Biol. (1994), 24(10), 1009-15
CODEN: IBMBES; ISSN: 0965-1748
DT Journal
LA English
AB To study the mechanism of action of diflubenzuron (DFB) and other benzoylphenylureas, we have initially hypothesized that their action may be related to exocytosis: to test the hypothesis, we obtained an intracellular vesicle prepn. from the homogenate of integument of newly molted American **cockroachs** (**Periplaneta** americana L.) in 10 mM MES buffer contg. 250 mM sucrose (isotonic) and 2.5 mM MgSO4, at pH 6.6. By studying DFB's effect on various ion transporting activities, we demonstrated that calcium uptake in this intracellular particulate prepn. was significantly inhibited by DFB at low concns. (e.g., 10-8 M). Such an inhibitory effect of DFB on Ca2+ uptake was eliminated by the addn. of ionophores or membrane disruptors, as well as the sonication of vesicle prepn. On the other hand, oligomycin, protein phosphorylation modulators, Na+, and Li+ did not affect the calcium uptake. Among ionophores, agents disrupting H+ gradients (e.g. FCCP and NEM) totally eliminated 45Ca uptaking activity by vesicles as well as the inhibitory effect of DFB. Among calcium ion modulators, calmodulin inhibitors such as calmidazolium and trifluoperazine decreased the Ca2+-uptake, whereas membrane calcium channel blocker, verapamil, did not. ATP and .gamma.-S-GTP stimulated Ca2+ uptake. However, the former increased only the DFB insensitive portion and the latter largely the DFB sensitive part of Ca2+. Together these data support the hypothesis that the action site of DFB in this prepn. is the GTP-dependent Ca2+ transport process which is coupled to vacuolar type intracellular vesicles in the integument cells.
TI Diflubenzuron affects gamma-thioGTP stimulated Ca2+ transport in vitro in intracellular vesicles from the integument of the newly molted American **cockroach, Periplaneta** americana L
AB To study the mechanism of action of diflubenzuron (DFB) and other benzoylphenylureas, we have initially hypothesized that their action may be related to exocytosis: to test the hypothesis, we obtained an intracellular vesicle prepn. from the homogenate of integument of newly molted American **cockroachs** (**Periplaneta** americana L.)

in 10 mM MES buffer contg. 250 mM sucrose (isotonic) and 2.5 mM MgSO4, at pH 6.6. By studying DFB's effect on various ion transporting activities, we demonstrated that calcium uptake in this intracellular particulate prepn. was significantly inhibited by DFB at low concns. (e.g., 10-8 M). Such an inhibitory effect of DFB on Ca2+ uptake was eliminated by the addn. of ionophores or membrane disruptors, as well as the sonication of vesicle prepn. On the other hand, oligomycin, protein phosphorylation modulators, Na+, and Li+ did not affect the calcium uptake. Among ionophores, agents disrupting H+ gradients (e.g. FCCP and NEM) totally eliminated 45Ca uptaking activity by vesicles as well as the inhibitory effect of DFB. Among calcium ion modulators, calmodulin inhibitors such as calmidazolium and trifluoperazine decreased the Ca2+-uptake, whereas membrane calcium channel blocker, verapamil, did not. ATP and .gamma.-S-GTP stimulated Ca2+ uptake. However, the former increased only the DFB insensitive portion and the latter largely the DFB sensitive part of Ca2+. Together these data support the hypothesis that the action site of DFB in this prepn. is the GTP-dependent Ca2+ transport process which is coupled to vacuolar type intracellular vesicles in the integument cells.

ST diflubenzuron calcium transport American **cockroach**; **Periplaneta** calcium transport intracellular vesicle diflubenzuron

IT Biological transport
Periplaneta americana
(diflubenzuron affect on gamma-thioGTP stimulated Ca2+ transport in intracellular vesicles from American **cockroach**)

IT Calmodulins
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(inhibitory action of diflubenzuron on calcium uptake by American **cockroach** intracellular vesicles response to)

IT Biological transport
(absorption, diflubenzuron affect on gamma-thioGTP stimulated Ca2+ transport in intracellular vesicles from American **cockroach**)

IT Biological transport
(exocytosis, diflubenzuron affect on gamma-thioGTP stimulated Ca2+ transport in intracellular vesicles from American **cockroach**)

IT Organelle
(vesicle, diflubenzuron affect on gamma-thioGTP stimulated Ca2+ transport in intracellular vesicles from American **cockroach**)

IT 35367-38-5, Diflubenzuron 37589-80-3
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(diflubenzuron affect on gamma-thioGTP stimulated Ca2+ transport in intracellular vesicles from American **cockroach**)

IT 7440-70-2, Calcium, biological studies
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(diflubenzuron affect on gamma-thioGTP stimulated Ca2+ transport in intracellular vesicles from American **cockroach**)

IT 52-53-9, Verapamil 56-65-5, 5'-ATP, biological studies **117-39-5**, Quercetin 117-89-5, Trifluoperazine 128-53-0 370-86-5, FCCP 538-75-0, DCC 630-60-4, Ouabain 1404-19-9, Oligomycin 1404-26-8, Polymyxin B 2001-95-8, Valinomycin 7439-93-2, Lithium, biological studies 7440-23-5, Sodium, biological studies 9001-84-7, Phospholipase A2 11103-72-3, Ruthenium red 13721-39-6 17090-79-8, Monensin 23583-48-4 27121-73-9, IP3 52665-69-7, A23187 53005-05-3, DIDS 95013-41-5, Calmidazolium
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(inhibitory action of diflubenzuron on calcium uptake by American **cockroach** intracellular vesicles response to)

L4 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2002 ACS
AN 1994:292038 CAPLUS
DN 120:292038

TI Effect of diflubenzuron on incorporation of [3H]-N-acetylglucosamine ([3H]NAGA) into chitin in the intact integument from the newly molted American **cockroach Periplaneta** americana
AU Nakagawa, Yoshiaki; Matsumura, Fumio; Hashino, Yoji
CS Dep. Environ. Toxicol., Univ. California, Davis, CA, 95616, USA
SO Comp. Biochem. Physiol., C: Comp. Pharmacol. Toxicol. (1993), 106C(3), 711-15
CODEN: CBPCEE; ISSN: 0742-8413
DT Journal
LA English
AB Diflubenzuron and polyoxin D clearly inhibited the incorporation of [3H]-N-acetylglucosamine ([3H]NAGA) into chitin in the isolated integument from newly molted American **cockroaches** under the exptl. condition. Upon homogenization, or tissue slicing, such an inhibitory effect of diflubenzuron on chitin synthesis totally disappeared, while that of polyoxin D did not. Mitochondrial poisons (oligomycin and FCCP), protein phosphorylation modulations (8-Br-cAMP, Na3VO4 and MnCl2), potassium ionophores (valinomycin), and calmodulin inhibitor (trifluoroperazine) clearly inhibited [3H]NAGA incorporation. Phospholipase A2 and calcium ion significantly enhanced the [3H]NAGA incorporation.
TI Effect of diflubenzuron on incorporation of [3H]-N-acetylglucosamine ([3H]NAGA) into chitin in the intact integument from the newly molted American **cockroach Periplaneta** americana
AB Diflubenzuron and polyoxin D clearly inhibited the incorporation of [3H]-N-acetylglucosamine ([3H]NAGA) into chitin in the isolated integument from newly molted American **cockroaches** under the exptl. condition. Upon homogenization, or tissue slicing, such an inhibitory effect of diflubenzuron on chitin synthesis totally disappeared, while that of polyoxin D did not. Mitochondrial poisons (oligomycin and FCCP), protein phosphorylation modulations (8-Br-cAMP, Na3VO4 and MnCl2), potassium ionophores (valinomycin), and calmodulin inhibitor (trifluoroperazine) clearly inhibited [3H]NAGA incorporation. Phospholipase A2 and calcium ion significantly enhanced the [3H]NAGA incorporation.
IT 50-76-0, Actinomycin D 60-82-2, Phloretin 64-86-8, Colchicine 66-81-9, Cycloheximide 83-89-6, Quinacrine 99-73-0 **117-39-5,** Quercetin 329-98-6, Phenylmethanesulphonyl fluoride 363-24-6, Pge2 370-86-5, Fccp 492-18-2, Mersalyl 506-32-1, Arachidonic acid 630-60-4, Ouabain 1404-04-2, Neomycin 1404-26-8, Polymixin b 7786-30-3, Magnesium chloride, biological studies 10043-52-4, Calcium chloride, biological studies 11103-72-3, Ruthenium red 17090-79-8, Monensin 17754-44-8, Atractyloside 22976-86-9, Polyoxin d 28822-58-4, Ibmx 52665-69-7, a23187 52918-63-5, Deltamethrin 56092-81-0, Ionomycin 71422-67-8, Chlorfluazuron 101463-69-8, Flufenoxuron
RL: BIOL (Biological study)
(acetylglucosamine metab. into chitin in insect response to)

L4 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2002 ACS
AN 1993:251646 CAPLUS
DN 118:251646
TI Phenol .beta.-glucosyltransferases in six species of insects: Properties and tissue localization
AU Ahmad, S. A.; Hopkins, T. L.
CS Dep. Entomol., Kansas State Univ., Manhattan, KS, 66506-4004, USA
SO Comp. Biochem. Physiol., B: Comp. Biochem. (1993), 104B(3), 515-19
CODEN: CBPBB8; ISSN: 0305-0491
DT Journal
LA English
AB Phenol .beta.-glucosyltransferase (PGT) activity in tissues of six species of insects was detd. by HPLC with UV/VIS detection of the .beta.-glucoside products. PGT activity was assocd. mainly with the 15,000 g pellet.

fraction of tissue homogenates; the fat body generally had the highest specific activity followed by the midgut. PGT activity was greatest with UDPG as a glucose donor, followed by dTDPG and GDPG. A broad range of phenolic compds., including mono- and diphenols, coumarins and a flavonoid, were glucosylated by insect PGTs. Two generalist herbivores, the grasshopper Melanoplus sanguinipes and the black cutworm Agrotis ipsilon, had the highest PGT activities, whereas other species, with more limited food selection, had lower rates of glucosylation.

IT Agrotis ipsilon
Insect
Manduca sexta
Melanoplus sanguinipes
Periplaneta americana
Tenebrio molitor
Tribolium confusum
(phenol .beta.-glucosyltransferases of tissues of)

IT 90-01-7, Salicyl alcohol 90-02-8, Salicylaldehyde, biological studies 90-05-1, Guaiacol 92-61-5, Scopoletin 93-35-6, Umbelliferone 108-95-2, Phenol, biological studies **117-39-5**, Quercetin 120-80-9, Catechol, biological studies 121-33-5, Vanillin 123-31-9, Hydroquinone, biological studies 150-76-5, p-Methoxyphenol 1076-38-6, 4-Hydroxycoumarin
RL: BIOL (Biological study)
(phenol .beta.-glucosyltransferase of tissues of insect species preference for)

L9 ANSWER 1 OF 3 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
AN 1967-05613G [00] WPIDS
TI Allurement composition for **termites** contng vanillin and.
DC C00
PA (KOPP) KOPPERS CO INC
CYC 1
PI US 3249500 A (196800)*
PRAI US 1963-254629 19630129
TI Allurement composition for **termites** contng vanillin and.
AB US 3249500 A UPAB: 19930831
An allurement compn. for providing a barrier to which **termites** will be drawn and then destroyed, which consists of vanillin (I) and a **termiticide** (II) as active ingredients.
Compn. may be dust, spray, aerosol, soln., emulsion, etc., prepd. in conventional manner.
Amount of (I) in compn. may be 0.001-5.0% by wt.
Amount of (II) in compn. may be 0.1- 20%.
(II) may be creosote, pentachlorophenol (or Na salt), Cu naphthenate, DDT, aldrin, chlordane, di-**eldrin**, NaF, malathion, etc., or Serratia marcescens, Aspergillus flavus, Lentinus lepideus etc.
Compn. provides an effective barrier in soil, to which **termites** are drawn and destroyed.
TT TT: COMPOSITION **TERMITE** VANILLIN.

L9 ANSWER 2 OF 3 CABA COPYRIGHT 2002 CABI
AN 1998:68859 CABA
DN 981103641
TI Influence of **rutin** and **quercetin** on substrate selection by the leaf-cutting **ant** Atta sexdens rubropilosa
AU Sugayama, R. L.; Salatino, A.
CS Department of Botany, Institute of Biosciences, University of Sao Paulo, CP 11461, 05422-970 Sao Paulo, SP, Brazil.
SO Revista Brasileira de Biologia, (1997) Vol. 57, No. 1, pp. 121-125. 21 ref.
ISSN: 0034-7108
DT Journal
LA English
TI Influence of **rutin** and **quercetin** on substrate selection by the leaf-cutting **ant** Atta sexdens rubropilosa.
AB Laboratory bioassays were carried out to investigate the influence of **rutin** [**rutoside**] and **quercetin** (1, 3 and 5%) on substrate selection by foragers of Atta sexdens rubropilosa. **Rutoside** did not affect substrate selection. **Quercetin** (5%) was discriminated by foragers and this effect was observed with lower intensity at the concentrations of 3 and 1%.
CT feeding behaviour; **rutoside**; **quercetin**; flavonols; bioassays; biology; behaviour; agricultural entomology
RN **153-18-4; 117-39-5**

L9 ANSWER 3 OF 3 CABA COPYRIGHT 2002 CABI
AN 85:2412 CABA
DN 841636494
TI Biosynthesis of proanthocyanidins in barley: genetic control of the conversion of dihydroquercetin to catechin and procyanidins
AU Kristiansen, K. N.
CS Dep Physiol., Carlsberg Lab., Gamle Carlsberg Vej 10, DK-2500 Copenhagen Valby, Denmark.
SO Carlsberg Research Communications, (1984) Vol. 49, No. 5, pp. 503-524. 44 ref.
ISSN: 0105-1938
DT Journal

LA English

AB The conversion was studied in maturing wild-type grains of cv. Nordal and in grains from proanthocyanidin-free mutants blocked in four different genes, ant13, ant17, ant18 and ant19. In the wild-type barley grown under controlled conditions, maximum rate of synthesis of catechin, procyanidin B3 and procyanidin C2 occurred 8-16 days after flowering. When labelled dihydroquercetin was fed to pericarp-testa tissue of wild-type barley, labelled catechin, procyanidin B3 and procyanidin C2 were synthesized, establishing dihydroquercetin as a precursor of these compounds. In addition, labelled 2,3-trans-3,4-cis-leucocyanidin was synthesized, indicating that this compound is an intermediate. The leucocyanidin was identified by cochromatography with an authentic standard prepared chemically by reduction of dihydroquercetin with NaBH4. The major product of this reduction, however, was the 2,3-trans-3,4-trans-leucocyanidin. Only mutant ant18-102 accumulated dihydroquercetin in the grain. Feeding [14C]dihydroquercetin to pericarp-testa tissue from the mutants revealed that **ant**-17-139 was capable of synthesizing significant amounts of labelled catechin and procyanidin, whereas **ant**-13-101, ant13-152, ant18-102 and ant19-109 synthesized none or only very small amounts of these compounds. It is concluded that (i) **ant** 18 controls the reduction of dihydroquercetin to 2,3-trans-3,4-cis-leucocyanidin,(ii) ant19 controls the reduction of the leucocyanidin to catechin and (iii) ant13 and ant17 control unidentified steps prior to dihydroquercetin.

CT plant composition; anthocyanidins; **quercetin**; genetics; mutations; Barley; composition; cereals

RN **117-39-5**

L12 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
AN 1946:16737 CAPLUS
DN 40:16737
OREF 40:3219a-b
TI **Gossypol** and its possible uses
AU Murty, K. S.; Seshadri, T. R.
SO Indian J. Pharm. (1942), 4, 153-7,163
DT Journal
LA Unavailable
AB The properties and constitution of **gossypol** are reviewed. Its use as a dye and as a therapeutic substance are briefly mentioned. Exptl. work by M. and S. shows that a kerosene soln. of the Et2O ext. of fat-free cottonseed is an effective spray against white **ants** and bugs, but not against **ants**. In a concn. of 0.025 g. per 1500 ml. H2O, it killed small fresh-water fish in about 30 min.

L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
AN 1972:471448 CAPLUS
DN 77:71448
TI Poison **baits** for boll weevils
IN Hedin, Paul A.; Miles, Lavenia R.; Minyard, James P.; Thompson, Alonzo C.
PA United States Dept. of Agriculture
SO U.S., 3 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3657414	A	19720418	US 1969-798107	19690210

TI Poison **baits** for boll weevils
AB Boll weevil (Anthonomus grandis) and the similar insects are exterminated by administering **insecticides** with some ingredients which serve as poison **bait**. Such **insecticide** formulation was prepd. by mixing .beta.-sitosterol (I) [83-46-5], N,N-dimethylaniline [121-69-7], 1,8-cineole [470-82-6], vanillin [121-33-5], mannitol [69-65-8], rhamnose [3615-41-6] in 0.1M phosphate buffer at pH 7.0. The mixt. was applied to chromatog. paper (1 inch squares) and the papers were wrapped around agar gel cylinders and presented to insects housed in petri dishes. The synthetic mixt. was highly preferred by the insects in 37 of 49 tests to the papers in cylinders treated with water exts. of cotton.
ST Anthonomus **insecticide**; sitosterol Anthonomus; dimethylaniline Anthonomus; vanillin Anthonomus; **gossypol** acetate Anthonomus; boll weevil **insecticide**
IT Anthonomus grandis
(control of, **insecticide baits** for)
IT **Insecticides**
(for Anthonomus grandis control, in **baits**)
IT 37226-07-6
RL: BIOL (Biological study)
(as **insecticide bait**, for boll weevil)
IT 37226-04-3 37226-08-7
RL: BIOL (Biological study)
(**insecticide bait**, for Anthonomus grandis control)

=> s l7 and (bait? or trap? or lure#) and (insecticid? or pesticid? or toxin?)
L16 4 L7 AND (BAIT? OR TRAP? OR LURE#) AND (INSECTICID? OR PESTICID? OR TOXIN?)

=> d 1-4 bib hit

L16 ANSWER 1 OF 4 CABA COPYRIGHT 2002 CABI
AN 95:108456 CABA
DN 951104241
TI Regularity of occurrence of rodents in low **gossypol** cotton fields and the control strategy
AU Zhao, R. Y.; Ma, H. Y.
CS Cotton Research Institute, Changsha, Hunan, China.
SO China Cottons, (1992) No. 2, pp. 43.
DT Journal
LA Chinese
TI Regularity of occurrence of rodents in low **gossypol** cotton fields and the control strategy.
AB A **trapping** survey in Hunan, China, showed that there were 4 times the number of rodents in fields of low **gossypol** cotton than in fields of a conventional cultivar. There were 3 peaks in rodent population density in May-September. Cereal **baits** treated with 0.1% Ramik [diphacinone] put out in mid-August and early September, at 2.25 kg/ha (150 g/mu), resulted in a mortality of 85.2%.
BT pests; animals; vertebrates; Chordata; **pesticides**; plants; rodenticides; mammals; Malvaceae; Malvales; dicotyledons; angiosperms; Spermatophyta; Developing Countries; East Asia; Asia; Central Southern China; China
CT **gossypol**; cotton; vertebrate pests; pest control; chemical control; rodenticides; **baits**; rodent control; population dynamics; cultivars; fibre plants; diphacinone; plant pests
RN **303-45-7**; 82-66-6

L16 ANSWER 2 OF 4 CABA COPYRIGHT 2002 CABI
AN 87:8804 CABA
DN 870538045
TI Influence of **bait** formulations on the effectiveness of Bacillus thuringiensis against Spodoptera littoralis (Boisd.) (Lep., Noctuidae)
AU El-Nockrashy, A. S.; Salama, H. S.; Taha, F.; Nockrashy, A. S. El-
CS Lab. Pests & Plant Protection, National Res. Cent., Dokki, Cairo, Egypt.
SO Journal of Applied Entomology, (1986) Vol. 101, No. 4, pp. 381-389. 23 ref.
ISSN: 0931-2048
DT Journal
LA English
TI Influence of **bait** formulations on the effectiveness of Bacillus thuringiensis against Spodoptera littoralis (Boisd.) (Lep., Noctuidae).
AB The role of **bait** formulations on the control of Spodoptera littoralis with Bacillus thuringiensis was studied in the laboratory. Treated cottonseed flour and soyabean flour were the basic ingredients used in these formulations. Some or all of the other ingredients (cottonseed oil, glycerol, ethanol extracts of cottonseed kernels, raffinose and maize extract) were added at various concentrations. Formulations containing soyabean flour showed greater potency when used at 5-10%. The **baits** containing cottonseed kernels extracted with ethanol and then with acetone-hexane-water azeotrope were also effective in increasing the potency of B. thuringiensis subsp. entomocidus. An increase in **gossypol** content decreased the effectiveness of the formulations, as shown by those containing cottonseed kernels extracted only with hexane. Changes in the total amount of cottonseed oil in the **bait** formulation over the range 1-12 g/100 g **bait** did not influence its effectiveness. The addition of a freshly prepared ethanol extract of cottonseed kernels caused a 3-4-fold increase in the

effectiveness of the **bait**, compared to a similar extract after storage for a month at room temperature. The **baits** containing hexane or cottonseed kernels extracted with acetone, hexane and water were less effective than the commercial preparation Coax. The concentration of the raffinose and maize extract had no clear effect.

BT **pesticides**; insects; arthropods; invertebrates; animals; prokaryotes; Bacillus; Bacillaceae; Firmicutes; bacteria; Bacillus thuringiensis; Spodoptera; Noctuidae; Lepidoptera

CT Microbial **pesticides**; Natural enemies; **Baits**; formulations; pathogenicity; hosts; attractants; Techniques; Soyabean flour; biological control; pest control; control; agricultural entomology; pathogens; biological control agents

L16 ANSWER 3 OF 4 CABA COPYRIGHT 2002 CABI

AN 84:77349 CABA

DN 840514469

TI Recent advances in the use of pheromones in developing countries with particular reference to mass-**trapping** for the control of the Egyptian cotton leafworm Spodoptera littoralis and mating disruption for the control of pink bollworm Pectinophora gossypiella

AU Campion, D. G.; Nesbitt, F.

CS Centre for Overseas Pest Research, London W8, United Kingdom.

SO (1982) pp. 335-342. Colloques de l'INRA no. 7. 21 ref.
Publisher: Institut National de la Recherche Agronomique. Paris
Meeting Info.: Les mediateurs chimiques agissant sur le comportement des insectes. Symposium international. Versailles, 16-20 novembre 1981.

CY France

DT Miscellaneous

LA English

TI Recent advances in the use of pheromones in developing countries with particular reference to mass-**trapping** for the control of the Egyptian cotton leafworm Spodoptera littoralis and mating disruption for the control of pink bollworm Pectinophora gossypiella.

AB The results are reviewed of the use of sex pheromones in **traps** in mass-**trapping** experiments against Spodoptera littoralis (Boisd.) on cotton in Egypt and on lucerne in Greece (including Crete) and in mating disruption experiments against S. littoralis and Pectinophora gossypiella (Saund.) in Greece and Egypt and Chilo suppressalis (Wlk.) in the Philippines, all on cotton. From the results the importance emerged of the role played by beneficial insects in controlling these pests on unspraysed crops. Mass-**trapping**, which had effects similar to those of the current hand-collection of egg masses, appeared inadequate for control of S. littoralis in Egypt and Greece. In the mating disruption tests, the pheromone of S. littoralis degraded so rapidly that impractically high concentrations (at least 40 g/ha) were necessary to reduce mating appreciably, but a microencapsulated formulation of the pheromone of P. gossypiella at the rate of 10 g/ha gave results comparable to those of chemical **insecticides**. During these experiments also, natural enemies may have kept the pest populations misleadingly low. From both series of tests it is concluded that the main benefit of pheromone **trapping** in developing countries may be in preventing local farmers from spraying their crops before it is known to be necessary, and in thus permitting natural biological control by predators and parasites.

CT distribution; control; **trapping**; **Traps**; sex attractant **traps**; attractants; mating disruption; cotton; food plants; lucerne; **gossypol**; mating disrupters; pests; fibre plants; pest control; agricultural entomology

RN **303-45-7**

L16 ANSWER 4 OF 4 CABA COPYRIGHT 2002 CABI

AN 78:24617 CABA

DN 770548103

TI Attractiveness of tobacco budworm females altered by oral chemosterilants and dietary additives

AU Hendricks, D. E.; Rosa, H. H. de la; Guerra, A. A.; De la Rosa, H. H.
CS Cotton Insects Research Laboratory, ARS, USDA, Brownsville, Texas 78520, USA.

SO Journal of Chemical Ecology, (1977) Vol. 3, No. 2, pp. 127-131. 10 ref.
ISSN: 0098-0331
DT Journal
LA English

AB Females of Heliothis virescens (F.) reared from larvae fed on diet treated with (0.1%) experimental chemosterilants or the dietary additive, DL-leucine, were used as **bait** in sex-**lure** **traps** in field cages when they were 2-4 nights old. Catches of untreated released males were used to determine relative attractiveness of the chemically treated females. The catch (indicating quantity or production frequency of pheromone) was significantly increased when DL-leucine had been fed in the larval diet, and sulfanilamide caused a slight increase in female attractiveness. The catch of males was significantly reduced when either reserpine or **quercetin** had been added to the diet. The other chemicals, bisdicumarol, 2,4,-D, beta -sitosterol and dihydrocholesterol, did not significantly affect the catch.

BT phenoxyacetic herbicides; phenoxy herbicides; herbicides; **pesticides**; Heliothis; Noctuidae; Lepidoptera; insects; arthropods; invertebrates; animals

L18 ANSWER 3 OF 31 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
AN 1997-161434 [15] WPIDS
DNC C1997-051712
TI Preventive and treating agent against intractable ulcer, gastritis and dermatitis - comprises e.g. antioxidative natural prod. and basic polysaccharide.
DC A96 B05 D13
PA (ITOM-I) ITO M
CYC 1
PI JP 09030987 A 19970204 (199715)* 19p
ADT JP 09030987 A JP 1995-207788 19950720
PRAI JP 1995-207788 19950720
AB JP 09030987 A UPAB: 19970410
Preventive and treating agent comprises (i) antioxidative natural prod. or synthetic cpd; (ii) antioxidative antibacterial substance; and/or iii) basic polysaccharide. Also claimed are A) ulcer, gastritis and dermatitis preventive and treating agents contg. i) quercetin, ii) tetracycline (TC), and iii) basic polysaccharide chitosan; and B) functional food for prevention and treatment of ulcer, gastritis and dermatitis. Antioxidative substance is pref. selected from quercetin, glutathione, tannin gp.(catechin), ferulic acid and seleniu cpd. Antibacterial substanc is pref. tetracycline cpd. such ss tetracycline, minocycline and doxycycline. Basic polysaccharide is pref. low molecular chitosan. The ulcer is stomach ulcer or duodenal ulcer caused by Helicobacter pylori. Ulcer is decubitus, thermal traumatic ulcer, congelational ulcer, diabetic ulcer, prognosis failure ulcer of zoster, radiation ulcer, drug allergic ulcer, immunodeficiency ulcer, postoperative ulcer or perithelial and endothelial ulcer; gastritis is chronic gastritis and dermatitis is atopic dermatitis. Antioxidative food is pref. e.g. Curcuma domestica Valeton, gingko, buckwheat, rice bran, DHE, EPA, vitamin E, vitamin C and vitamin B2 and basic polysaccharide is crab, shrimp and insect shells.

USE/ADVANTAGE - The agent is for the treatment or preventive material (agent or food) for intractable ulcer, gastritis and dermatitis. The agent is safe.

In an example, Quercetin (20 mg), low molecular chitosan (100 mg), tetracycline hydrochloride (10 mg), magnesium stearate (1.8 mg), hydropropyl **cellulose** (2,5 mg) and lactose (adequate amt.) were mixed to give 300,0 mg/tablet. **Quercetin** suspended in 1 % gum arabic was orally administered (1 mg/100 g) to SD male rats. After the stomachs were taken out, the length (mm) and the width (mm) of the wounds were measured. The wound area was calculated by mutliplying the length by the width. The results showed that oral admin. of quercetin (50 and 100 mg/kg) inhibited the appearance of H/Cl and ethanol gastric membrane wound by 42 % and 73 % respectively, compared to the control.
Dwg.0/13

L18 ANSWER 16 OF 31 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
AN 1967-09394G [00] WPIDS
TI Feedstuff for silkworms contng polyhydroxycarboxylic.
DC C00
PA (HAMY) HAMAMURA Y
CYC 1
PI US 3328170 A (196800)*
PRAI JP 1963-11944 19630306
AB US 3328170 A UPAB: 19930831
A feedstuff for silkworms contng. biting factor (BF) and swallowing factor (SF), together with a polyhydroxycarboxylic acid (I) or a salt or ester of I. An attracting factor (AF) is opt. present.

Artificial feedstuff for silkworms, which normally only eat mulberry leaves. I acts as a feed-intake promoter.

AF is a terpene, e.g. citral, linalyl acetate, linalol, and terpinyl acetate. AF may be omitted if the silkworms are placed on the feed. BF is beta-sitosterol with or without flavonoids such as **quercetin**, morin, **rutin**, and isoquercitrin.
SF is
cellulose powder. I is e.g. an aromatic polyhydroxy acid such as
chlorogenic acid, caffeic acid, gallic acid, gentisic acid, homogentisic acid, resorcylic acid and quinic acid.

L18 ANSWER 26 OF 31 CABA COPYRIGHT 2002 CABI
AN 82:86837 CABA
DN 821435007
TI The effect of rutin on growth, fecundity and food utilization in Acheta domesticus (L.)
AU McFarlane, J. E.; Distler, M. H. W.
CS Dep. Entomology, Macdonald College, 21,111 Lakeshore Road, Ste. Anne de Bellevue, PQ, Canada H9X 1C0.
SO Journal of Insect Physiology, (1982) Vol. 28, No. 2, pp. 85-88. 16 ref. ISSN: 0022-1910
DT Journal
LA English
AB The widely occurring plant glucoside, rutin, was given at 0.1% in the diet for newly hatched larvae of house crickets (Acheta domesticus). The diet was of 40 g casein, 30 g Alphacel **cellulose**, 20 g dextrose, 1 g cholesterol and 4 g minerals. **Rutin** significantly decreased the duration of the larval stage in males and significantly increased the bodyweight of adult females; the number of eggs laid by females increased. Rutin had no effect on feed intake. The results seemed to be due to increased feed utilization, brought about possibly by an effect on gut movement, on the microbial flora, or on gut transport.

L

L20 ANSWER 1 OF 1 CABA COPYRIGHT 2002 CABI
AN 94:112687 CABA
DN 941107156
TI Chemical composition of north American bee propolis and biological activity towards larvae of greater wax moth (Lepidoptera: Pyralidae)
AU Johnson, K. S.; Eischen, F. A.; Giannasi, D. E.
CS Department of Botany, University of Georgia, Athens, GA 30602, USA.
SO Journal of Chemical Ecology, (1994) Vol. 20, No. 7, pp. 1783-1791. 25 ref. ISSN: 0098-0331
DT Journal
LA English
AB Bee propolis is a sticky amalgamation of plant resins collected by Apis mellifera and is used for filling cracks and repairing combs in hives. Propolis contains a diversity of compounds of plant origin and is reported to have medicinal, antimicrobial, insecticidal and phytotoxic properties. The physical and chemical composition of North American samples of propolis from several sites in North America was determined and tested for activity against larvae of Galleria mellonella, a common apiary pest. The amount of methanol-extractable resin in samples from Ohio and Georgia ranged from 24 to 79% by weight. Propolis collected from hives in Ohio were more chemically diverse (over 30 compounds detected by paper chromatography), than material from south Georgia (fewer than 10 major compounds), and contained a lower proportion of methanol-insoluble beeswax. The paper chromatographic surveys revealed little variation in the chemical profile of specific hives over a 6 month period, and no differences between propolis from adjacent hives. Four flavonoids were identified from propolis collected in Ohio: kaempferol, galangin, 3,3'-di-methoxyquercetin and 3-methoxykaempferol. When mixed into artificial diet, fractionated propolis reduced larval growth of G. mellonella, but not dramatically. An array of phenolics reported from propolis (caffeic acid, chrysin, ferulic acid, galangin, kaempferol and **quercetin**) were bioassayed individually for effects on larvae but none reduced larval growth at the concn tested, suggesting that G. mellonella are tolerant of some phenolics in their diet.
CT insect pests; **social insects**; honey bees; beneficial insects; chemical analysis; synthetic diets; chemical ecology; diets; propolis; flavonoids; caffeic acid; ferulic acid; kaempferol; effects; agricultural entomology

L22 ANSWER 23 OF 25 CAPLUS COPYRIGHT 2002 ACS
AN 1968:411563 CAPLUS
DN 69:11563
TI Light stabilization of cellulosic materials
IN Anarmetova, D.; Tillyakhodzhaev, D.; Tulyaganov, M. M.; Pilosov, M. Ya.; Gafurov, T. G.
PA Scientific-Research Institute of Chemistry Technology and of Cotton Cellulose
SO U.S.S.R.
From: Izobret., Prom. Obraztsy, Tovarnye Znaki 1968, 45(7), 63.
CODEN: URXXAF
DT Patent
LA Russian
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI SU 211023		19680208	SU	19660527

AB **Cellulosic** materials are treated with a tech. **gossypol** soln. with subsequent impregnation with a 1.5-10% soln. of hexamethylene diisocyanate.
IT Light, ultraviolet, chemical and physical effects
(stabilizers, for paper, gossypol and hexamethylene isocyanate as)
IT Paper
(ultraviolet light stabilizers for, gossypol and hexamethylene isocyanate as)
IT 822-06-0
RL: USES (Uses)
(ultraviolet light stabilizers from gossypol and, for paper)
IT 303-45-7
RL: USES (Uses)
(ultraviolet light stabilizers from hexamethylene isocyanate and, for paper)

L22 ANSWER 24 OF 25 CAPLUS COPYRIGHT 2002 ACS
AN 1948:9173 CAPLUS
DN 42:9173
OREF 42:2033h-i
TI Cottonseed cake as a supplementary source of food
AU Adamova, A. A.; Lebedeva, M. A.
SO Gigiena i Sanit. (1947), 12(No. 7), 33-5
DT Journal
LA Unavailable
AB Cottonseed cake contains protein 35.07-41.5, fat 7.56-9.11, nonnitrogenous extractable material 22.2, ash 6.5-6.7, **cellulose** 5.44-9.57, free **gossypol** 0.11-0.20%. Heating for 30-60 min. at 100.degree. of a cake contg. at least 25% moisture converts practically all free gossypol into the physiologically bound or inert form. Autoclaving at temp. 120.degree. for one hour irrespective of moisture content detoxicates gossypol completely. Sixty g. daily of cottonseed cake in human diets for 4.5 months had no harmful effect.